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10/604,090	06/25/2003	Thcodorc V. Valkov	PROS1120	1089

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SPRINKLE IP LAW GROUP
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EXAMINER

ZECHER, MICHAEL R

ART UNIT	PAPER NUMBER
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3691

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/604,090	Applicant(s) VALKOV ET AL.	
	Examiner Michael R. Zecher	Art Unit 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a non-final, first Office action on the merits. Claims 1-21 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 2** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "...comprises an attribute comprising a maximum price for the commodity, a minimum price for the commodity, a forecast price for the commodity during the next period, the company's price rank, or the nearest higher price for the commodity." It is not clear why applicant recites "...comprises an attribute...". Furthermore, since the claim limitation recites "or" it is not clear if applicant intended to include each element or at least one of each element. For examination purposes, the limitation has been construed as --at least one of maximum price for the commodity, a minimum price for the commodity, a forecast price for the commodity during the next period, the company's price rank, or the nearest higher price for the commodity--.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-21** are rejected under 35 U.S.C. 102(e) as being anticipated by Phillips et al. (U.S. 7,133,848).

As per claim 1, Phillips et al. teaches a method of determining a price for a commodity (See figures 1 & 2, and claims 1 & 15, which illustrate and discuss a computer-implemented dynamic pricing system that incorporates a system and method for dynamically pricing a product) comprising:

generating a forecast market state condition for a next period (See column 3, lines 3-5, which discuss using historical data from prior transactions to form profit maximizing price recommendations for future sales);

clustering data from a database into clusters (See column 3, line 65, through column 4, lines 1, which discuss grouping transactions by market segments; including grouping different market segments into mutually exclusive and collectively exhaustive sets called channel segments);

identifying which cluster corresponds to the forecast market state condition (See column 4, lines 1-3 discuss aggregating transactions, channel segments, along market segment dimensions); and

generating a price-demand curve using the data from the identified cluster (See figure 2, #140, and which illustrate a price sensitivity model that develops a linear price/volume model).

As per claim 2, Phillips et al. teaches wherein the forecast market state condition comprises an attribute comprising a maximum price for the commodity (See claim 5, which discusses the strategic objective of a maximum price for the product).

As per claim 3, Phillips et al. teaches wherein clustering data comprises:
generating a clustering index to the forecast market state condition (See column 4, lines 36-40, which discusses how the price sensitivity model (PSM) generally models price sensitivity for a particular product through a function that varies with price to represent the relative change in sales volume); and

assigning the forecast market state condition to the cluster based on its clustering index (See column 3, lines 62-65, which discusses how each transaction has several attributes specifying its different features, and by exploiting the similarities with the attributes, the transactions can be grouped by market segments).

As per claim 4, Phillips et al. teaches wherein generating is performed without using data from any other cluster (See column 4, 9-13, which discusses how each and every sale can be classified into only one channel segment; whereby the channels segments are the level at which product prices will be recommended for computing forecasts).

As per claim 5, Phillips et al. teaches wherein the data from the database comprises transactional data comprising price and quantities sold (See figure 2, #120, which illustrates a transaction database containing the price for the transacted product and the size of sales).

As per claim 6, Phillips et al. teaches determining the price for the next period using the price-demand curve (See figure 2, #130 & #160, which illustrates a Normalized Sales Forecaster and Sales Forecaster capable of forecasting sales over a period of time; and, furthermore, figure 4 which illustrates a linear price/volume model).

As per claim 7, Phillips et al. teaches wherein determining the price comprises determining the price consistent with maximizing profit, volume, or revenue (See figure 2, #15, column 1, lines 12-16, and claim 7, which illustrate and discuss maximizing revenue, profit, and volume).

As per claim 8, Phillips et al. teaches wherein the commodity is a product (See claim 1, which discusses dynamically pricing a product).

Claims 10-18 recite equivalent limitations to claims 1-9, respectively, and are therefore rejected using the same art and rationale as set forth above.

As per claim 19, Phillips et al. teaches a system for determining a price for a commodity (See figures 1 & 2, and claims 1 & 15, which illustrate and discuss a computer-implemented dynamic pricing system that incorporates a system and method for dynamically pricing a product) comprising:

a database comprising historical data for the commodity (See figure 2, #120, which illustrates a transaction databases that stores a record of prior transactions);

a market state generation module that is adapted to generate a forecast market state condition for a next period using the historical data (See figure 2, #130 & #160, which illustrate a Normalized Sale Forecaster and Sales Forecaster capable of

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predicting sales levels in the market segments in the future at different prices for a respective product);

a clustering module that is adapted to generate clusters including a specific cluster having the forecast market state condition (See figure 2, #120, which illustrates a transaction database capable of grouping market segments into mutually exclusive and collectively exhaustive sets called channel segments); and

a demand curve generation module that is adapted to generate a price-demand curve in response to receiving data from the particular cluster from the clustering module (See figure 2, #140, which illustrates a price sensitivity model capable of creating a linear model depicting a slope estimating the change in sales per change in price correlated with volume).

As per claim 20, Phillips et al. teaches a price determination module that is adapted to use a demand curve from the demand curve generation module (See figure 2, #140, which illustrates a price sensitivity model capable of creating a linear model depicting a slope estimating the change in sales per change in price correlated with volume) and a business rule to determine the price for the commodity for a next period (See column 2, lines 9-11, which discusses how the system optimizes prices given current and projected inventory constraints and different strategic objectives, also known as business rules).

As per claim 21, Phillips et al. teaches wherein:

the forecast market state condition comprises a prediction of the price for the next period (See column 3, lines 3-5, which discuss using historical data from prior transactions to form profit maximizing price recommendations for future sales); and

the specific cluster used by the demand curve generation module comprises the prediction of price (See figure 4, #143, which illustrates the display of graphs of price sensitivity curves using the linear model between maximum and minimum prices).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. (U.S. 7,133,848), and further in view of Official Notice.

As per claim 9, Phillips et al. fails to explicitly disclose wherein the commodity is a service.

The Examiner takes Official Notice that it is old and well known in the art or technology that a commodity may be referred to as a service. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Phillips et al. to include a commodity as a service in order to provide forecasting of prices for services; for example, it is desirable for businesses to forecast cost increases over periods of time, such as sub-contracted labor.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cheliotis et al. (U.S. 2005/0278262) discloses a method and device for calculating a price for using a specific link in a network.

Olavson et al. (U.S. 2004/0128261) discloses a method and system for creating a price forecasting tool.

Tan (U.S. 2002/0174053) discloses optimizing decision making.

Cox et al. (U.S. 2002/0152111) discloses a method and system for accurately forecasting prices and other attributes of agricultural commodities.

Mathews et al. (U.S. 2004/0249696) discloses systems, methods and computer program products for modeling demand, supply and associated profitability of a good.

Boyd et al. (U.S. 6,963,854) discloses a target pricing system.

Curkendall et al. (U.S. 6,995,675) discloses a method and system for agricultural data collection and management.

Vivona (U.S. 5,960,407) discloses an automated market price analysis system.

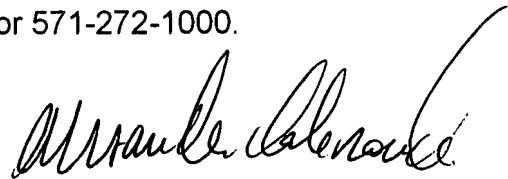
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Zecher whose telephone number is 571-270-3032. The examiner can normally be reached on M-F 7:30-5:00 alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on 571-272-6771. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MRZ

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